

# Political Reforms, Electoral Competition, and Chief-led Ritual Violence in Colonial Lesotho\*

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We show that the political reforms implemented under indirect British colonial rule - the ‘democratization of African chieftaincy’ - increased political competition and led to a rise in chief-led ritual violence. Based on micro-level time series data from colonial Lesotho from 1895 to 1966, we show that medicine murders (a form of chief-led ritual violence) increased in periods of political competition when hereditary chiefs were exposed to electoral competition for the first time, and in subsequent years of elections and formation of new political parties. Further, judicial records point towards group participation in the violence. Our results support an interpretation that the colonial reforms encouraged reform-opposing traditional elite to build social capital using ritual violence as a costly signal of support.

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A substantial body of literature examines the relationship between democratic processes and social capital. It is generally accepted that social capital is necessary for the entrenchment of democratic processes, summarized by the maxim — democracy requires democrats (Lipset 1959; Huntington 1993). Alternatively, once democracy is introduced, social capital is built, this is the learning hypothesis, the rules of the game are learned and internalized. Increasingly, there is agreement that the relationship is endogenous. Social capital creates democracy, and democracy creates social capital, retaining the view that social capital and democracy have a positive correlation though we are agnostic about the causality. Increasingly, this view is challenged by interrogating the nature of social capital. Social capital that is exclusive can also run counter to democratic values. Netwon (2001) and Paxton (2002) demonstrate this in the case of Germany.

It is equally possible to argue that democratization also can create negative social capital. Here we provide evidence towards this hypothesis.

For the most part, the literature has distinguished two forms of violence, targeted violence against opponents to retain power, and indiscriminate violence against citizens to reduce turnout or support for the democratic process. We identify a new variety of violence and propose a theoretical argument for its existence.

The existence of civic capital is widely believed to have a positive effect on democratization processes. Voluntary associations, celebrating rituals such as festivals, increases social capital which in turn increases support for democratization processes. Here we provide evidence towards a contrary hypothesis. Participation in some forms of rituals might increase some forms of social capital which in turn reduce support for democratic processes.

In environments where democratization is introduced exogenously, the difference in beliefs and values of the democratizing agent and the domestic elite can permit new forms of violence to be salient. Further, domestic elite, who do not support democratization, might view these

forms of violence as legitimate. In periods of democratization, forms of violence that align with the beliefs of traditional elite, can emerge as costly signals of support for traditional coalitions. In such environments, violence, of high salience but low intensity, might occur as opposed to large scale violence against opponents.

British colonial rule in the African continent remains an important site for examining this signaling and coalition building role of specific forms of violence. In several colonies, exogenously introduced democratization and new forms of political institutions led native elite to respond with violence.

Based on micro-level time series data in colonial Lesotho from 1895 to 1966, we show that medicine murders (a type of chief-led ritual violence) increased when British colonial administrators changed the political system from relatively stratified (hereditary) to relatively egalitarian (electoral). Ritual violence increased in periods of political competition when hereditary chiefs were exposed to electoral competition for the first time, and in subsequent years of elections and formation of new political parties. Victims were not political opponents. Those implicated, on average, comprised of a coalition of ten accomplices. These included hereditary chiefs and witch doctors (Murray and Sanders 2005). Together, our results support an interpretation that ritual violence was used towards increasing in-group sociality or coalition formation, during periods of political competition, as opposed to the repression of opponents. Thus examination of a low intensity but highly salient form of violence allows us to introduce new theories that expand the repertoire of political violence as well as expand the motivations behind these forms of violence.

## Background

Lesotho was formed in the early 19th century as an independent ethnically homogeneous territory. Moshesh, a chief of the Kwena tribe, is believed to have combined the disintegrated fragments of the Kwena and other tribes to form the Basutos. Since 1843, the British and the Dutch fought to control the region, which finally resulted in a stable British occupation in 1884. Anthropologists document the prevalence of chief-led medicine murders since the 1850s (Jones 1951). These were attributed to tribal warfare practiced during and before the 19th century. People obtained ingredients from the bodies of tribal enemies (liretlo) killed in the course of warfare to extract strength from their victims, a practice consistent with theories arguing costly rituals signal group commitment in warfare (Sosis et al. 2007). It was common for hereditary chiefs to keep liretlo in their animal horns to strengthen their chieftainship (Murray and Sanders 2005; Jones 1951). A typical medicine murder involved a hereditary chief or chiefs asking their 'ngaka' (witch doctor) for human medicine called 'liretlo' or 'diretlo' to fill their medicine horn called 'lenaka.' Most hereditary chiefs had witch-doctors who were held in high regard because of the belief that they possessed supernatural powers (Martin 1903). Witch doctors, along with other participants, organized a victim and prepared liretlo using an elaborate set of rituals. Parts of the body were extracted while the victim was alive. These parts were used to develop compounds which were believed to have special power. Anecdotal evidence suggests that the typical payment was 2-4 units of cattle (Murray and Sanders 2005; Jones 1951).

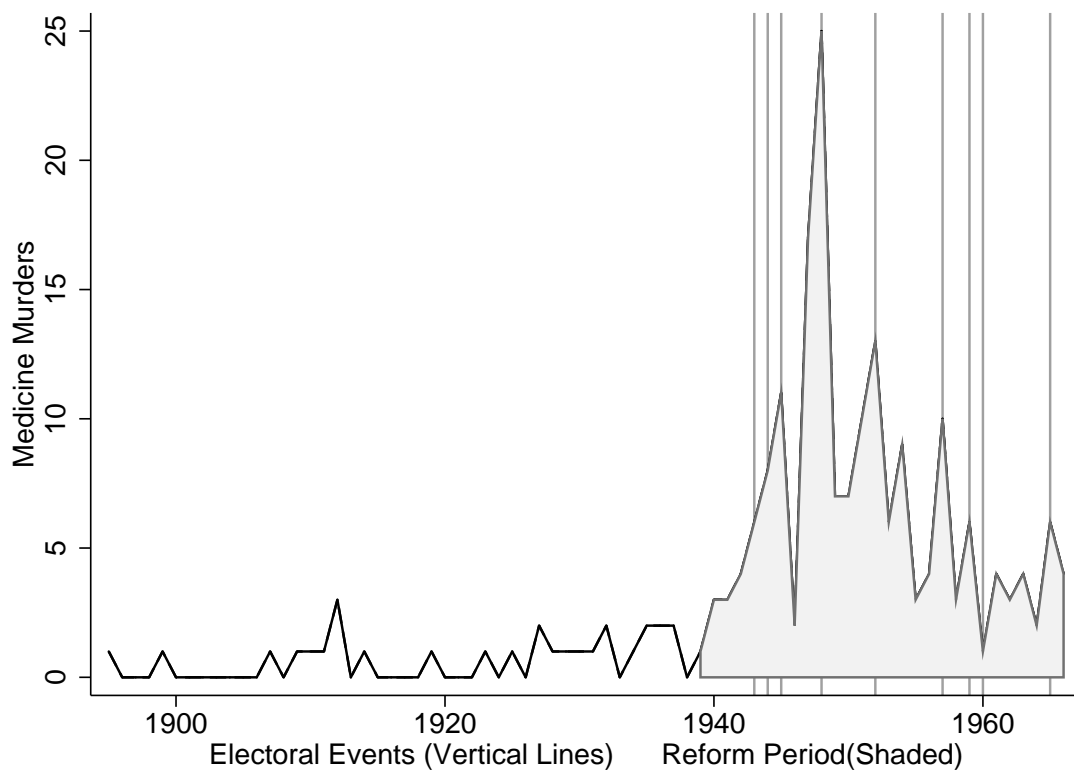
In the early years of British indirect rule, Lesotho's political system can be categorized as stratified. The political structure comprised of a Paramount Chief as the head, followed by chiefs in charge of the 24 wards, sectional chiefs in charge of ward sections, sub-sectional chiefs in charge of ward subsections, headmen in charge of a group of villages and a village head in charge of a village. These positions were largely hereditary, though senior chiefs could make appointments below them ('placing'). Moshesh had developed a lineage based

system where his sons and brothers were incorporated as chiefs across wards, a practice that continued. ‘This decentralization was balanced by family ties which united these chiefs together as members of a single family and subordinate to the head of the family — the Paramount Chief (Jones 1951). There were an average of 0.8 medicine murders per year from 1895 to 1942 (48 years). This supports the existing consensus that chief-led ritual violence was prevalent in stratified societies (Watts et al. 2016).

Though Lesotho was under indirect rule, in the 1920s, Resident Representatives expressed concern over growing corruption and chieftainship abuses. In 1934, Alan Pim was appointed as a Commissioner to inquire into the financial and economic position of the country. The Pim Report 1935 severely criticized the administrative and political system and recommended a reduction in the power of hereditary chiefs and administrative reforms (Murray and Sanders 2005). Since the beginning of 1943, the British introduced legislations that substantially dismantled the hereditary political structure in favor of a more egalitarian structure. The Basutoland Council Reforms introduced from 1943-45 included (i) reforming the Basutoland Council by introducing a large proportion of elected members, (ii) establishing District Councils to elect these members and to represent district interests in the Basuto Council, (iii) establishing a national treasury, (iv) introducing salaries for the position of chiefs, and (v) reforming the judicial system (Jones 1951). In 1945, the Paramount Chief accepted these proposals on the recommendation of the Basutoland Council. The judicial reforms reduced the number of courts from 2500 to 1340 (Rosenberg et al. 2004). By 1948, elections were introduced and 42 of the 99 members of the Basutoland Council were required to be elected to office (Basutoland Colonial Office 1950).

From 1943 to 1966, a period that can be classified as more egalitarian, there were an average of 7.1 medicine murders per year (See Figure 1 for the distribution of medicine murders over time). After the rise in medicine murders in the 1940s, the British appointed committees to investigate the causes. The Committee on Medicine Murders (1953) attributed the rise in

Figure 1: Medicine murders in colonial Lesotho from 1895 to 1966



medicine murders to the administrative reforms in 1938 and in 1946, and to the abolition of ‘matsema’ in 1950 (Committee on Medicine Murder 1953). ‘Matsema’ was the right of hereditary chiefs to command free labour from their subjects. In 1949, the High Commissioner of Basutoland appointed G.I. Jones, an anthropologist, to independently investigate the causes of medicine murders. After conducting a general survey of public opinion, an intensive study of particular areas, and an examination of judicial records, he concluded ‘a detailed study of the criminal records of each particular murder or suspected murder believed to be connected with diretlo, disclosed that in the majority of cases the underlying motive was political.’ Among the 118 cases in which information regarding the instigators is known, 104 were either chiefs or headmen — ‘if we knew all the facts this proportion would probably be higher (Murray and Sanders 2005, 192).’ The intensity of medicine murders was also higher in regions with a higher density of hereditary chiefs (Machobane 1990).

## Data and Methods

We proceed to empirically show that chief-led ritual violence increased on account of a change in the nature of political competition from hereditary selection to electoral selection. For our independent variable, we code chief-led ritual violence ( $MedicineMurders_t$ ) as a count of the number of medicine murders per year based on the judicial case summaries in Murray and Sanders (2005) which provide summaries of 210 cases from 1895 to 1966. We code two main explanatory variables. The first,  $ReformPeriod_t$  categorizes the entire time series into a pre-reform period when the stratified political structure was retained and a reform period when the political structure was made relatively egalitarian through the introduction of elections.  $ReformPeriod_t$  is a dummy variable that takes the value of one for the entire period of the British administrative reforms after 1938 when the reforms were proposed. Our second main explanatory variable is a list of political events.  $ElectoralEvents_t$ , takes

Table 1: **Administrative reforms and electoral events in Lesotho**

Description	Year
<b>Colonial Administrative Reforms</b>	
Reform period pre-World War II	1938-1966
Implementation period towards the end of World War II	1943-1966
<b>Electoral Events</b>	
Basutoland Council Reforms	1943-45
Election Reform (National representation to elected members)	1948
First national party formed (Basutoland African Congress)	1952
Second national party formed (Marema Tlou Party)	1957
Third national party formed (Basutho National Party)	1959
District Council Elections	1960
National Assembly Elections	1965

the value of one for the years in which specific electoral events occurred. These electoral events were the announcement of elections, election years, and formation of new political parties. These are listed in Table ???. Figure 1 shows the distribution of medicine murders (in black), period of administrative reforms (shaded), and electoral events (vertical lines) from 1895-1966.

[Table ?? here]

The analysis also includes controls to account for economic explanations of ritual violence. Human sacrifice, another form of political ritual violence, amongst the Aztecs was a consequence of ecological pressure i.e. the need to get rid of individuals in times of protein scarcity (Harner 1977). Similarly, witch-hunts in Tanzania increased in periods of drought to get rid of unproductive individuals (Miguel 2005), and European witch hunts occurred in periods of weather shocks which caused food shortages (Oster 2004). In the context of Lesotho, the economic hypothesis might imply that chiefs used medicine murders to get rid of dependents. Individual-level data shows that amongst the 125 cases for which information is available, the victim was a dependent in three cases and related to one of the accomplices in 11 cases. Administrative reforms could have directly led to economic hardship for the chiefs due to a loss of earnings. If economic shocks were relevant, non-political economic shocks such as



drought should also increase medicine murders. To examine this economic hypothesis, we will consider whether medicine murders respond to economic shocks that are independent of administrative reforms or electoral events.

To test the income shock hypothesis, we use rainfall anomaly data extracted from the Southern Africa 200 Year Multiproxy Summer and Winter Precipitation Reconstructions for Lesotho (Neukom et al. 2013). This data is a 7 scale rainfall index from +3 to -3 (Very wet, wet, good rain, normal, dry, drought, severe drought) based on historical sources. Using this scale, 12 years can be classified as drought years. If medicine murders are determined by income shocks, medicine murders should increase in periods of drought; Lesotho was largely dependent on agriculture during the period. The mean number of medicine murders per year are almost equal in drought and non-drought years. Nevertheless, the economic hypothesis may still hold to the extent the political channel is not independent from the economic channel. Chiefs could have faced a more severe income shock due to loss of a political position than on account of drought.

As an alternate measure, we use net income (Total Aggregate Revenue - Total Aggregate Expenditure in pounds) received by the colonial government from taxes during the period 1895 to 1966. Basutoland was dependent on agriculture throughout this period. Hence net income is a suitable proxy for economic shocks because net collections from the region are expected to reduce due to lower revenue and higher expenditure during economic shocks such as famine. The data is coded from the Annual Reports of the Colonies, Basutoland (Resident Commissioner's Report 1895-1965) and the British Colonial Blue Books available at the National Archives, UK. The average number of medicine murders is statistically indistinguishable for periods in which revenue is above the mean and periods in which revenue is below the mean.

It is possible that other economic factors might determine medicine murders. Lesotho was a labour reserve for South Africa during the period. In 1966, 43% of the adult male population

was employed in the mining sector in South Africa (US Department of Labor 1966). The Basutos also participated in World War II. However, we do not have data on the temporal variation in the proportion of Lesotho’s labor force that participated in the mining economy of South Africa or that were part of the British army. Nevertheless, we do expect the proportion of emigration to South Africa and army conscription to be higher in drought years, and expect  $Droughtyears_t$  to serve as a weak proxy to capture economic shocks arising from emigration of the labor force. Labor migration in colonial Lesotho led to negative effects on family structure in the form of marriage instability, illegitimacy, desertion and breakup of joint families (Murray 1981). However, 88% of the medicine murders were on account of political reasons and involved hereditary chiefs (Murray and Sanders 2005). The hypothesis that family disputes within migrant labor households led to an increase in medicine murders does not appear to be supported by the data.

The model is estimated using five specifications to account for the time series properties of the data; a static model without controls, a static model with controls, an Autoregressive Distributed Lag model (ADL) with Partial Adjustment (ADL-P) i.e. a model with lags of the dependent variable to control for the effect of medicine murders from the previous years, Autoregressive Finite Lag model (ADL-F) which has lags of the independent variables to control for the effect of electoral events and economic shocks from the previous years, and a General ADL model (ADL-G) which has lags of dependent and independent variables to control for the effect of medicine murders, economic shocks and electoral events from the previous periods. We use the following specifications:  $Y_t = \alpha_0 + \beta_0 X_t + \epsilon_t$  for the static models,  $Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \beta_0 X_t + \epsilon_t$  for ADL-P,  $Y_t = \alpha_0 + \beta_0 X_t + \beta_1 X_{t-1} + \epsilon_t$  for ADL-F, and  $Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \beta_0 X_t + \beta_1 X_{t-1} + \epsilon_t$  for ADL-G. The lag structures are optimal based on the results of the Schwarz’s Bayesian Information Criterion (SBIC) and Hannan and Quinn Information Criterion (HQIC) (Cameron and Trivedi 2008).

To show that electoral competition led to an increase in medicine murders, we use the

following specification.

$$MedicineMurders_t = \alpha_0 + \alpha_1(ElectoralEvents_t) + X_t\gamma + \epsilon_t \quad (1)$$

where  $MedicineMurders_t$  are the number of medicine murders in year  $t$ ,  $ElectoralEvents_t$  is a dummy for the years of specific electoral events listed in Table ?? and  $X_t$  is a set of controls which consists of economic shocks, reform period, and model dependent lags. Based on the hypothesis that political competition induced by colonial administrative reforms led to an increase in medicine murders, we should expect the effect of  $ElectoralEvents_t$  on  $MedicineMurders_t$  to be positive ( $\alpha_1 > 1$ ). The analysis uses a negative binomial regression model for all estimations and demonstrates similar effects using a simple linear regression model in the Supplementary Material Table 1. Since the variance to mean ratio (VMR) is greater than 1 (1.11), a negative binomial model is recommended over a poisson model. To present meaningful estimates, the estimated coefficients are converted to Incident Rate Ratios (IRR). In Equation 1, a switch from a normal year to a year in which an electoral event occurred is expected to increase medicine murders by a multiple of  $\alpha_1$ .

## Results and Analysis

The analysis demonstrates that hereditary elites increase ritual violence in response to electoral events induced by colonial administrative reforms. The results in Table ?? show that medicine murders were between 4.86 and 5.44 times more likely in periods of electoral events than normal periods. Since the administrative reforms and the electoral competition induced by the administrative reforms were contemporaneous events, it is difficult to isolate the effect of electoral events from the effect of the reforms. An instrumental variable strategy is not appropriate in this case because using  $ReformPeriod_t$  (as an instrument for  $ElectoralEvents_t$ ) is not likely to satisfy the exclusion restriction;  $ReformPeriod_t$  could have

affected  $\text{MedicineMurders}_t$  due to an improvement in reporting. An alternate strategy is to seek a source of variation in reforms. The data does not permit this. Instead, by including  $\text{ReformPeriod}_t$  as an independent variable, we control for the effects of the administrative reforms. This strategy takes into account the possibility that administrative reforms could have had a direct effect on medicine murders and also addresses the problem of non-stationarity since political events in the time series are concentrated in the last 26 years. The results are still significant. However, the estimated effect size of  $\text{ElectoralEvents}_t$  on  $\text{MedicineMurders}_t$  is smaller. Medicine murders were somewhere between 2.1 and 2.53 times higher during years of electoral events. A greater proportion of the variation in  $\text{MedicineMurders}_t$  is explained by  $\text{ReformPeriod}_t$  i.e. medicine murders were between 3.50 and 6.87 times higher during years of administrative reforms.

Table ?? also shows that medicine murders were uncorrelated with economic shocks. The estimated coefficient on  $\text{Droughtyears}_t$  is statistically insignificant and substantially lower than  $\text{ElectoralEvents}_t$  or  $\text{ReformPeriod}_t$  across all models, indicating medicine murders were less responsive to independent economic shocks. Supplementary Material Tables 2 and 3 use an alternate economic variable,  $\text{NetRevenue}_t$ . The results are similar. Supplementary Material Table 4 reports the interaction effect of  $\text{ElectoralEvents}_t$  and independent economic shocks to examine whether the combined effect of economic shocks and political events intensified the practice of medicine murders. The estimated coefficient on the interaction term is statistically insignificant. While the regressions controlled for dynamic effects (on account of temporal persistence of dependent and/or independent variables) the estimates are not explicitly reported because they are insignificant for most variables. Supplementary Material Table 5 shows that  $\text{ElectoralEvents}_t$  did not have significant lead or lag effects on medicine murders in Lesotho. An explicit interpretation of these coefficients might be misleading since estimated lead and lag effects are confounded with proximate shocks; estimates cannot distinguish between a lag/lead and two shocks closer to each other.

Table 2: **Negative binomial regression examining the effect of electoral events on medicine murders.**

	Dependent Variable: MedicineMurders					
	Static Models			Dynamic Models		
	Static	Static	Static	ADL-P	ADL-F	ADL-G
ElectoralEvents <sub>t</sub>	4.86*** (1.92)	5.44*** (2.16)	2.18*** (0.57)	2.35*** (0.55)	2.29*** (0.62)	2.53*** (0.62)
Droughtyears <sub>t</sub>		1.51 (0.48)	1.37 (0.32)	1.31 (0.27)	1.41 (0.35)	1.32 (0.29)
ReformPeriod <sub>t</sub>			7.26*** (1.86)	3.60*** (1.10)	6.87*** (1.80)	3.50*** (1.08)
Lags (Dep. Variables)	N	N	N	Y	N	Y
Lags (Ind. Variables)	N	N	N	N	Y	Y
Number of years	72	72	72	69	69	69

Notes:  $IRR > 1$  ( $IRR < 1$ ,  $IRR = 1$ ) implies a positive effect (negative effect, no effect)

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

[Table ?? here]

In the following section, we use secondary ethnographic data on Lesotho to examine 1) the causes of increase in chief-led ritual violence, 2) the reasons for the choice of a particular form of ritual - medicine murders, and 3) the reasons why some chiefs chose medicine murders and not others. In Lesotho, Moshesh had managed to develop a lineage based system in which his sons and brothers were incorporated as chiefs across wards, a practice that continued after Moshesh. Under the lineage system, lineage was a necessary and sufficient trait for political selection that citizens and candidates could coordinate on. The British destabilized the trait by introducing electoral institutions. At the margin, all alternative signals including ritual violence gained salience. The British also abolished the placing system for most chiefs. Medicine murders became more salient because placing — an institution of pacification under the lineage system — was no longer available and new institutions of pacification such as a stable party system were not fully developed.

Why did chiefs choose medicine murders over any other form of violence? We discuss two possible reasons, beliefs and coalition formation. In Lesotho, the norm of medicine murders

emerged during times of war when enemies were killed ritualistically. The Horn of Moshesh, the main horn of the Basuto nation, which was used to boost morale in periods of war, was believed to contain the flesh of enemy tribesmen. ‘The average [Basuto] person adopts a very tolerant attitude towards *diretlo* murders (Jones 1951, 19). Official reports investigating medicine murders in Lesotho support the view that beliefs in the efficacy of medicine murders were strong. Studies claim political determinants of similar types of violence in Ghana (Gocking 2000), South Africa (Ashforth 2005; Niehaus 2001), Lesotho (Jones 1951; Murray and Sanders 2005), Botswana (Burke 2000), Swaziland (Evans 1993), Togo (Ellis 1993), and Cameroon<sup>28</sup>.

Medicine murders could have been a particularly effective way of seeking support from conservative constituencies by hereditary chiefs in a period when new political structures were being introduced. Since medicine murders involved the cooperation of a number of collaborators, they could be considered as a signal of strong ties with powerful witch doctors and local chiefs. Among the 129 cases where records are available, a chief had, on average, ten accomplices, often from multiple villages (Murray and Sanders 2005). The number of non-implicated accomplices were even more. For example, case 1958/1 had 80 accomplices drawn from seven villages of which 23 were officially implicated and case 1946/2 has 60 accomplices of which 14 were officially implicated (Murray and Sanders 2005). Medicine murders also required material resources. Hereditary chiefs who participated could not have done so without adequate economic resources to develop clientelist relationships outside the formal structure. Average payments were 2-4 units of cattle. Our analysis conforms with similar interpretations in other forms of religious violence that dominated the landscape in colonial Africa. In the case of the Mau mau rebellion in Kenya, colonial administrators attributed the rebellion to religious fanaticism, while subsequent literature shows that the rebellion was carried out by a significant section of native elites in response to political changes introduced by colonial administrators and supporting native elite (Berman 1976).

Finally, since not all political chiefs participated in medicine murders, which type of candidates were more likely to do so? Evidence from 93 cases shows ‘by far the largest class [of implicated individuals] contain those who murder to satisfy political ambition — persons in authority, usually petty chiefs and headmen or their henchmen, the latter acting under their instructions or on their own initiative (Jones 1951, 17).’ Court records show 13 medicine murders were to support placings, 11 were to resist placings, 36 related to rivalries and disputes with other chiefs because the chief’s position was threatened by another, 17 were over land disputes and jurisdiction among chiefs, six related to disputes among chiefs within courts, three related to chieftainship reforms, and 46 were general cases where medicine was needed for the horns but the specific reason was unknown (Murray and Sanders 2005, 197) Many chiefs, particularly those at the top levels of the hierarchy were able to protect themselves from judicial authorities. The Paramount Chief Mantsebo was linked to 13 murders but never implicated (Murray and Sanders 2005, 137). There is no evidence to suggest that politicians affiliated to political parties participated in medicine murders. This might indicate a divide between modern political candidates and hereditary political chiefs. The politicians who were able to adapt to the new system did not appear to rely on traditional signals of power such as medicine horns. Collaborating with witch doctors was unlikely to align with their new identities within political parties. However, this was not the case for hereditary chiefs and witch doctors who attempted to retain control over conservative constituencies — chief-led ritual violence as a costly signal to build solidarity (Norenzen, 6).

## Model

We develop a simple dynamic model to explain why ritual violence increase with political competition.

Consider a society with a political elite  $P$ , a religious elite  $R$ , and a mass of citizens. The

political elite may use the ritual of human sacrifice (HS) to generate political surplus. As HS often requires an elaborated set of rituals, the scale of the HS would be crucial for its success. Denote  $c_P \in [0, 1]$  the level of participation by political elite where  $c_P = 0$  implies non-participation and  $c_P = 1$  implies the the highest level of participation.

Since HS often requires religious elite such as witch-doctor, the level of engagement of religious elite crucially determines the size of surplus generated from HS. Denote  $c_R \in [0, 1]$  the participation decision by religious elite. Similarly,  $c_R = 0$  implies non participation and  $c_R = 1$  implies the the highest level of participation.

The belief of HS by citizens is important for its success. When no one believes HS, then no political surplus can be generated. When most of citizen believe in HS, the surplus generated can be sizable. Denote  $\pi \in \Pi \subseteq [0, 1]$  as the belief of citizen on HS. For analytical convenience, we assume that the number of possible belief is large but finite. In particular, we have  $\Pi = \{\pi^0, \pi^1, \dots, \pi^N\}$  where  $N$  is finite but very large. Without loss of generality, we have  $\pi^0 = 0$  and  $\pi^N = 1$ .

The power of political elite is crucial to determine the size of political surplus. One important function of HS is to enhance the legitimacy of the political elite and create a stronger sense of unity and thus helping to solve the coordination problem among people (e.g., Myerson 2008). The more power is held by the political elite, the more surplus can be generated through HS. Denote  $\gamma$  the power possessed by the political elite, and  $\Gamma$  be the set of all possible power. This power parameter also captures the strength of political rivals of the current political elite.

Since HS is generally inconsistent with core values of a civil society, the surplus due to HS is decreasing with the strength of institution in the society. Denote  $\alpha > 0$  the strength of civic institution. A higher  $\alpha$  implies the society is more likely to discover and more willing to punish HS.



To summarize, the political surplus from HS depends on the power of political elite  $\gamma$ , participation from political elite  $c_P$ , participation from religious elite  $c_R$ , and the belief of citizen  $\pi$ . Payoffs functions of political and religious elites are  $u_P(c_P, c_R; \alpha, \gamma, \pi)$  and  $u_R(c_P, c_R; \alpha, \gamma, \pi)$  with the following assumptions:

**A1 (No free-riding):** For all  $\alpha, \gamma$  and  $\pi$ , we have

$$u_P(0, c_R; \alpha, \gamma, \pi) = 0 \text{ and } u_R(c_P, 0; \alpha, \gamma, \pi) = 0.$$

Political surplus would only be enjoyed by participating elites. There is no free riding. Non-participation would receive no surplus from HS. Note that zero payoff is normalization, which is an innocuous assumption.

**A2 (Unilateral participation is worse than non-participation):** For all  $\alpha, \gamma$  and  $\pi$ , we have

$$\begin{aligned} u_P(c_P, 0; \alpha, \gamma, \pi) &< u_P(0, 0; \alpha, \gamma, \pi) = 0 \text{ for all } c_P > 0, \\ u_R(0, c_R; \alpha, \gamma, \pi) &< u_P(0, 0; \alpha, \gamma, \pi) = 0 \text{ for all } c_R > 0 \end{aligned}$$

On one hand, because the role in the ritual, HS requires the participation of the religious elite. Without any support from the religious elite, HS is unlikely to be rewarding because HS is costly. On the other hand, the religious elite is unable to capitalize the benefit of HS without the participation of the political elite.

**A3 (Power is crucial):** when  $\gamma = 0$ , we have  $u_P$  and  $u_R$  are strictly negative unless  $c_P = c_R = 0$ ;

If political elite is lack of power, it is better not to engaging in HS since it is costly.

**A4 (Monotone in power):** when  $\pi, c_P, c_R > 0$ , we have  $u_P$  and  $u_R$  are strictly increasing in  $\gamma$ .

When the politician elite has more power, the more surplus can be generated through HS.

**A5 (Belief is crucial):** when  $\pi = 0$ , we have  $u_P$  and  $u_R$  are strictly negative unless  $c_P = c_R = 0$ ; when  $c_P, c_R, \gamma > 0$ , there exists  $\pi \in \Pi$  such that  $u_P$  and  $u_R$  are positive.

If the politician elite has no power, it is better not to stage HS.

Note that A1-A5 implies that for every  $\pi > 0$ , there exists  $\hat{\gamma}$  such that for all  $\hat{\gamma} > \gamma$ , we have  $u_P(c_P, c_R; \alpha, \gamma, \pi) > 0$  and  $u_R(c_P, c_R; \alpha, \gamma, \pi) > 0$  for all  $c_P > 0$  and  $c_R > 0$ .

**A6 (Monotone in belief):** when  $c_P, c_R > 0$ , we have  $u_P$  and  $u_R$  are increasing in  $\pi$ .

If citizen does not believe in HS, then it is unlikely to be large political rent.

**A7 (Monotone in institution):** when  $c_P, c_R > 0$ , we have  $u_P$  and  $u_R$  are decreasing in  $\alpha$ .

**A8 (Complementarity in participation):** when  $c_P, c_R > 0$ , we have  $u_P$  is increasing in  $c_R$  when  $u_P > 0$  and  $u_R$  is increasing in  $c_P$  when  $u_R > 0$ .

We consider dynamic model with discrete time indexed by  $t = 0, 1, 2, \dots$ . Both political and religious elites have a common discount factor  $\delta$ . The society is endowed with an initial belief  $\pi_0 > 0$  and institution  $\alpha$ . In each period  $t$  starting with belief  $\pi_t$ ,

- Nature randomly chooses the power of political elite  $\gamma_t \in \Gamma$  where the possible state of world in  $\Gamma$  is finite.
- Political elite chooses the level of HS  $c_{P,t} \geq 0$

- Observing the participation by political elite  $c_{P,t}$ , the religious elite  $R$  decides  $c_{R,t} \geq 0$  without knowing  $\gamma_t$ .
- Payoff for this period realized and belief  $\pi_{t+1}$  is updated through the following transition dynamics:

$$\pi_{t+1} = f(\pi_t, c_{P,t}, c_{R,t}, \gamma_t; \alpha)$$

where we assume that

$$\begin{aligned} \pi_t &\geq \pi_{t-1} \text{ if } c_{P,t} > 0 \text{ and } c_{R,t} > 0, \\ \pi_t &\leq \pi_{t-1} \text{ if } c_{P,t} = 0 \text{ or } c_{R,t} = 0. \end{aligned}$$

This formula restricts the updating process such that belief is revised upward when both elites participate in this period (except already the belief at the boundary).

Denote  $(\mathbf{c}_p, \mathbf{c}_R)$  an strategy profile of the game where  $\mathbf{c}_p = (c_{p,t})_{t=0}^{\infty}$  and  $\mathbf{c}_R = (c_{R,t})_{t=0}^{\infty}$ .

Discounted payoffs for political elite and religious elite are

$$\begin{aligned} U_P &= \sum_{t=0}^{\infty} \delta^t U_P(c_{P,t}, c_{R,t}; \alpha, \gamma_t, \pi_t) \text{ and} \\ U_R &= \sum_{t=0}^{\infty} \delta^t U_R(c_{P,t}, c_{R,t}; \alpha, \gamma_t, \pi_t) \end{aligned}$$

Following the literature of political economy, we employ Markovian restriction. Focusing on Markov strategy, elites are focusing on payoff-relevant histories. It does not allow tacit coordination between elites to cooperate based on their interaction in the distant past. This is particular relevant in models of political economy with a long time horizon.

Formally, the (Markovian) strategy of political elite is based on current belief  $\pi_t$ , institution  $\alpha$ , and power  $\gamma_t$ , or  $s_P : [0, 1] \times \mathbb{R}_+ \rightarrow \mathbb{R}_+$ . And religious elite is based on power  $\gamma_t$ , institution  $\alpha$ , the belief  $\pi_t$  and participation of political elite  $c_{P,t}$ , or  $s_R : \mathbb{R}_+ \times [0, 1] \times \mathbb{R}_+ \rightarrow \mathbb{R}_+$ .

Under Markovian restriction, we can remove the time subscripts and the value functions are

$$V_P(\pi, \gamma) = \max_{c_P} u_P(c_P, c_R; \alpha, \gamma, \pi) + \delta E_\gamma V_P(\pi', \gamma)$$

$$V_R(\pi, \gamma) = \max_{c_R} u_R(c_P, c_R; \alpha, \gamma, \pi) + \delta E_\gamma V_R(\pi', \gamma)$$

where  $\pi' = f(\pi, c_P, c_R, \alpha, \gamma)$  is the belief in the next period.

It is clear that equilibrium strategy would be a cutoff strategy:

First, by backward induction, consider the choice of religious elite  $R$  given the choice of political elite. The payoff is always zero for non-participation regardless of value of  $c_P$ . If the political elite has decided to participate  $c_P > 0$  for the current period, then this-period payoff for the religious elite  $R$  is strictly positive for participation  $c_R > 0$  if power  $\gamma$  and belief  $\pi$  are large enough. Moreover, the future payoff of joint participation would be higher with upward revised belief in subsequent periods. Hence, it is dominant for the religious elite is to participate ( $c_R > 0$ ) if  $c_P > 0$  and  $\gamma$  and  $\pi$  are large. Note that the religious elite may also find it beneficial to participate even if this period payoff is negative: when the participation would shift the belief such that future payoff will be positive for future participation when the political elite is expected to continue to participate.

Moreover, it is clear that the participation by the religious elite  $c_R$  is higher if the political power  $\gamma$  is higher, belief  $\pi$  is higher, and participation of political elite  $c_P$  is higher.

Now consider the choice of political elite. If it is clear that if the religious elite is not participating ( $c_R = 0$ ), the political elite would not participate too ( $c_P = 0$ ) since the current period payoff is negative and it cannot change the belief  $\pi$ . Hence, the optimal

choice of political elite is to participate whenever  $c_R > 0$ , and zero otherwise. Similarly, the political elite may also find it beneficial to participate even if this period off is negative when the religious elite is also expected to participate: the participation would shift the belief such that future payoff will be positive for future participations when both elites are expected to continue to participate in the future.

Similarly, it is clear that participation by the political elite  $c_P$  is higher if the political power  $\gamma$  is higher, belief  $\pi$  is higher.

Consider  $\Gamma$  is degenerated so that the power of political elite is stable over time, or,  $\gamma_t = \gamma$  for all  $t$ .

**Proposition 1.** There exists  $\bar{\gamma} > 0$  such that (a) if  $\gamma < \bar{\gamma}$ , then all equilibria involve no HS, (b) if  $\gamma > \bar{\gamma}$ , then there exists an equilibrium involves HS, and all payoff-dominant equilibria involve HS.

**Proof.** (a) Note that when  $\gamma = 0$ . All equilibria involve no HS. We will prove by contradiction for the case  $\gamma > 0$ . Suppose the contrary that all equilibria that involve HS. This implies that for every  $\gamma > 0$ , there exists an outcome  $(\mathbf{c}_p, \mathbf{c}_t)$  such that the payoffs are higher than non-participation for the religious leaders:

$$U_R(\mathbf{c}_P, \mathbf{c}_R; \alpha, \gamma, \pi_t) \geq 0$$

However, we know that, from (A3),

$$U_R(\mathbf{c}_P, \mathbf{c}_R; \alpha, 0, \pi_t) < 0$$

By monotonicity (A4), there exists  $\bar{\gamma} > 0$  such that for all  $\gamma < \bar{\gamma}$ , we have

$$U_R(\mathbf{c}_P, \mathbf{c}_R; \alpha, \gamma, \pi_t) < 0$$

where all equilibria involves no HS.

(b) Since the participation of political and religious elites is complementary both in the same period and across periods, by monotonicity (A6), when  $\gamma > \bar{\gamma}$ , there will be an equilibrium involve HS. Since every equilibrium involving no HS will be Pareto-dominated in terms of payoff by another equilibrium involves HS, all payoff-dominant equilibrium involves HS. ■

Proposition 1 implies that when the power of political elite  $\gamma$  is low, there is no HS. This explains what happens in period 1 and period 5:

**Period 1** Sending signal is too costly as religious elite does not benefit a lot, and the public will not follow it under low initial belief. In the other words, the elite has low  $\gamma$ . Given there is no ritual, there is no believer.

**Period 5** Uncertainty resolves. Ritual-aligned elite is weak. It is now dominated (or very weak incentive) to send signal. As fewer rituals are performed, we have fewer followers and there are fewer rituals until zero.

Moreover, Proposition 1 also suggests that when  $\gamma$  is large, there is will be sacrifice, and it is very likely. This explains what happens in period 2:

**Period 2** Political suddenly got a lot of power. Dominant for the ritual elite to send a costly signal, which can be supported by the religious elite, and this attract some followers. As some ritual is performed, more people starts to believe. This starts a ritual-cycle that more rituals are performed.

Now we consider the political elite may face challenges from upcoming election. Before an election, the power of political elite is uncertain as the surplus would depend on the election outcome. Consider that  $\gamma_t$  has two possible levels  $\gamma^H$  and  $\gamma^L$  where  $\gamma^L < \gamma^H$ . WLOG, let  $\gamma^L \leq \bar{\gamma}$  and  $\gamma^H > \bar{\gamma}$ . If  $\gamma^H$  and  $\gamma^L$  both are less than  $\bar{\gamma}$ , then all equilibria will involves no HS. If both  $\gamma^H$  and  $\gamma^L$  are higher than  $\bar{\gamma}$ , then all payoff-dominant equilibria will involve HS.

**Proposition 2.** If  $\gamma^H > \gamma^S \geq \bar{\gamma}$ , we have a pooling equilibrium that both types will participate HS. If  $\bar{\gamma} > \gamma^H > \gamma^S$ , then we have a pooling equilibrium that both types will not participate HS. If  $\gamma^H > \bar{\gamma} > \gamma^S$ , then there is a separating equilibrium that high type will participate in HS. Moreover, if  $\alpha$  is smaller, then there will be a higher participation in HS in all equilibria involving HS.

**Proof.** If both  $\gamma^H$  and  $\gamma^L$  are greater than  $\bar{\gamma}$ , then from Proposition 1, we know that there will be a pooling equilibrium that both types will join HS. Similarly, there is a pooling equilibrium without HS if both  $\gamma^H$  and  $\gamma^L$  are less than  $\bar{\gamma}$ .

Now consider  $\gamma^H > \bar{\gamma} > \gamma^S$ . Clearly, it is dominated for the weak type politician to conduct HS. Dominance removes a pooling equilibrium that both types joining HS. Hence, only the high type would join HS. The effect of  $\alpha$  directly follows from (A7).■

## Conclusion

We show that in colonial Lesotho, an enforced transition from a lineage model of political selection to an electoral model led to an increase in chief-led medicine murders. Lesotho was an ethnically homogeneous colony ruled by a hereditary system, which was stable but corrupt. Following the recommendations of a new administrator, Alan Pim, the British

abolished lineage-based succession to political positions and introduced elections. Chief-led violence was substantially higher in the years when native chiefs were exposed to electoral competition. The results indicate that violence increased during the democratization process because lineage was no longer a sufficient condition for political selection. To reiterate, the democratization process itself transformed a consensual model into a non-consensual model and altered the incentives of traditional chiefs. The results have implications for the generally accepted view that more political competition leads to an increase in development. In the case of Sierra Leone, Acemoglu et al. (2014) show that in regions where chiefs face more political competition, development outcomes are higher because political competition reduces the ability of chiefs to co-opt civil society and to develop clientelist relations. It is possible that the type of violence examined in this paper, medicine murders, could have countered this effect of political competition by developing patron-client relationships through the mechanism of violence. Since religious elites were also involved in medicine murders along with political elites, medicine murders can be regarded as means of co-option. This interpretation suggests violence could be used to create negative social capital.

Our results have implications regarding the political consequences of colonial rule. Blanton et al. (2001) argue that the ruling strategies of colonial empires had different effects on ethnic conflict. The authors claim that the British adopted indirect rule in Africa which left traditional forms of political organization intact. These traditional structures facilitated the mobilization of aggrieved minorities which led to higher post-colonial ethnic conflict. The French, on the other hand, promoted centralized institutions which dismantled traditional political systems. As a consequence ethnic mobilization was impeded which led to lesser violence. While we do not investigate post-colonial violence, our analysis presents an alternative mechanism for the increase in violence in British colonies. In the case of Lesotho, though the British followed indirect rule, they imposed new political institutions. By introducing elections and reducing the number of administrative positions, the British managed to break collective action within native elites and increase within-elite political competition.



By abolishing the practice of hierarchical placement the British reduced the possibilities for elite accommodation within native political systems. In contrast to the view that the traditional system was left intact under British indirect rule, in the case of Lesotho, violence increased because the British changed both, the system of political selection and the means of political pacification. Our results align with the generally accepted view regarding the nature of indirect rule; indirect rule allowed for the inclusion of native elites in governance, not necessarily the native political structure. (Crowder 1964; Naseemullah and Staniland 2014.) This argument also supports accounts of divide and rule as a commonly used strategy by the British to maintain control in the colonies.

Finally, an important take away from the analysis is that ritualistic forms of violence such as medicine murders are similar to other forms of political violence.<sup>1</sup> By demonstrating that political competition led to an increase in medicine murders in colonial Lesotho, this paper incorporates ritual violence within the repertoire of violence-based strategies adopted by political elite to remain in power. However, this is not to say that the modus operandi or welfare implications of identity-based violence and ritual-based violence is similar. In terms of human capital losses, medicine murders in Lesotho, perhaps, were less costly than other forms of violence, yet efficient in their political ends; a little ritual goes a long way. As Foias (2013) summarizes, rituals and other ideational resources are doubly important in the pursuit of political power particularly when the use of coercion to obtain political ends is too costly.

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<sup>1</sup>Fjelde and Hoglund (2014) show that electoral violence in Sub-saharan Africa is more likely during elections when ethno-political groups are excluded. In the case of Lesotho, traditional coalitions and their political norms of selection were substituted by elections. This exclusion led to an increase in traditional forms of violence that signaled support for traditional means of political accession.

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## Appendix Tables

Appendix Table 1. OLS regression examining the effect of electoral events on medicine murders controlling for drought years.

	Dependent Variable: MedicineMurders <sub>t</sub>					
	Static Models			Dynamic Models		
	Static	Static	Static	ADL-P	ADL-F	ADL-G
ElectoralEvents <sub>t</sub>	7.59*** (2.19)	5.20*** (1.33)	4.96** (2.27)	4.88*** (1.55)	5.10** (2.16)	5.05*** (1.50)
Droughtyears <sub>t</sub>		0.74 (0.66)	0.86 (0.72)	0.76 (0.67)	0.93 (0.70)	0.86 (0.60)
ReformPeriod <sub>t</sub>			4.13*** (0.83)	0.83 (1.01)	4.13*** (0.84)	0.81 (0.90)
Lags (Dep. Variables)	N	N	N	Y	N	Y
Lags (Ind. Variables)	N	N	N	N	Y	Y
Number of years	72	69	69	69	69	69
R-Squared	0.33	0.34	0.52	0.64	0.52	0.65

Notes: All estimates are ordinary least-squares.

Robust standard errors in parentheses.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

Appendix Table 2. Negative binomial model examining the effect of electoral events on medicine murders controlling for colonial revenue.

	Dependent Variable: MedicineMurders <sub>t</sub>					
	Static Models			Dynamic Models		
	Static	Static	Static	ADL-P	ADL-F	ADL-G
ElectoralEvents <sub>t</sub>	4.86*** (1.92)	4.78*** (1.98)	1.99** (0.53)	2.25*** (0.54)	1.84** (0.49)	2.18*** (0.55)
NetRevenue <sub>t</sub>		1.03*** (0.02)	1.02 (0.02)	1.03** (0.02)	1.02 (0.02)	1.03* (0.01)
ReformPeriod <sub>t</sub>			7.14*** (1.85)	3.46*** (1.06)	6.87*** (1.80)	3.48*** (1.11)
Lags (Dep. Variables)	N	N	N	Y	N	Y
Lags (Ind. Variables)	N	N	N	N	Y	Y
Number of years	72	69	69	67	65	65

Notes:  $IRR > 1$  ( $IRR < 1$ ,  $IRR = 1$ ) implies a positive effect (negative effect, no effect)

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

Appendix Table 3. OLS model examining the effect of electoral events on medicine murders controlling for colonial revenue

	Dependent Variable: MedicineMurders <sub>t</sub>					
	Static Models			Dynamic Models		
	Static	Static	Static	ADL-P	ADL-F	ADL-G
ElectoralEvents <sub>t</sub>	7.59*** (2.19)	8.08*** (2.19)	5.27** (2.37)	5.19*** (1.40)	4.79* (2.52)	4.94*** (1.46)
NetRevenue <sub>t</sub>		0.16* (0.08)	0.14* (0.07)	0.15* (0.08)	0.12 (0.08)	0.16* (0.08)
ReformPeriod <sub>t</sub>			4.06*** (0.93)	0.69 (1.05)	4.13*** (0.95)	0.82 (1.23)
Lags (Dep. Variables)	N	N	N	Y	N	Y
Lags (Ind. Variables)	N	N	N	N	Y	Y
Number of years	72	69	69	67	65	65
R-Squared	0.33	0.39	0.55	0.67	0.56	0.67

Notes: All estimates are ordinary least-squares.

Robust standard errors in parentheses.

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$



Appendix Table 4. Negative binomial model examining the interaction effect of electoral events and economic shocks on medicine murders.

	Dependent Variable: MedicineMurders <sub>t</sub>	
	Electoral Events	Administrative Reforms
PolXEcoInteraction <sub>t</sub>	1.02 (0.05)	1.00 (0.10)
ElectoralEvents <sub>t</sub>	4.66*** (1.94)	
ReformPeriod <sub>t</sub>		9.17*** (2.35)
NetRevenue <sub>t</sub>	1.02 (0.03)	1.02 (0.10)
Number of years	69	69

Notes:  $IRR > 1$  ( $IRR < 1$ ,  $IRR = 1$ ) implies a positive effect (negative effect, no effect)

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

Appendix Table 5. Negative binomial model examining the lead and lag effects of electoral events on medicine murders.

	Dependent Variable: Medicine Murders <sub>t</sub>						
	Lags of ElectoralEvents <sub>t</sub>				Leads of ElectoralEvents <sub>t</sub>		
	-3	-2	-1	0	+1	+2	+3
ElectoralEvents <sub>t</sub>	1.57 (0.46)	1.34 (0.41)	0.77 (0.24)	1.99** (0.53)	1.18 (0.35)	0.61* (0.18)	0.80 (0.24)
NetRevenue <sub>t</sub>	1.03* (0.02)	1.03* (0.02)	1.03 (0.02)	1.03 (0.02)	1.03* (0.02)	1.03* (0.02)	1.03* (0.02)
Number of years	68	69	70	71	70	69	68

Notes:  $IRR > 1$  ( $IRR < 1$ ,  $IRR = 1$ ) implies a positive effect (negative effect, no effect)

\* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$